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ABSTRACT

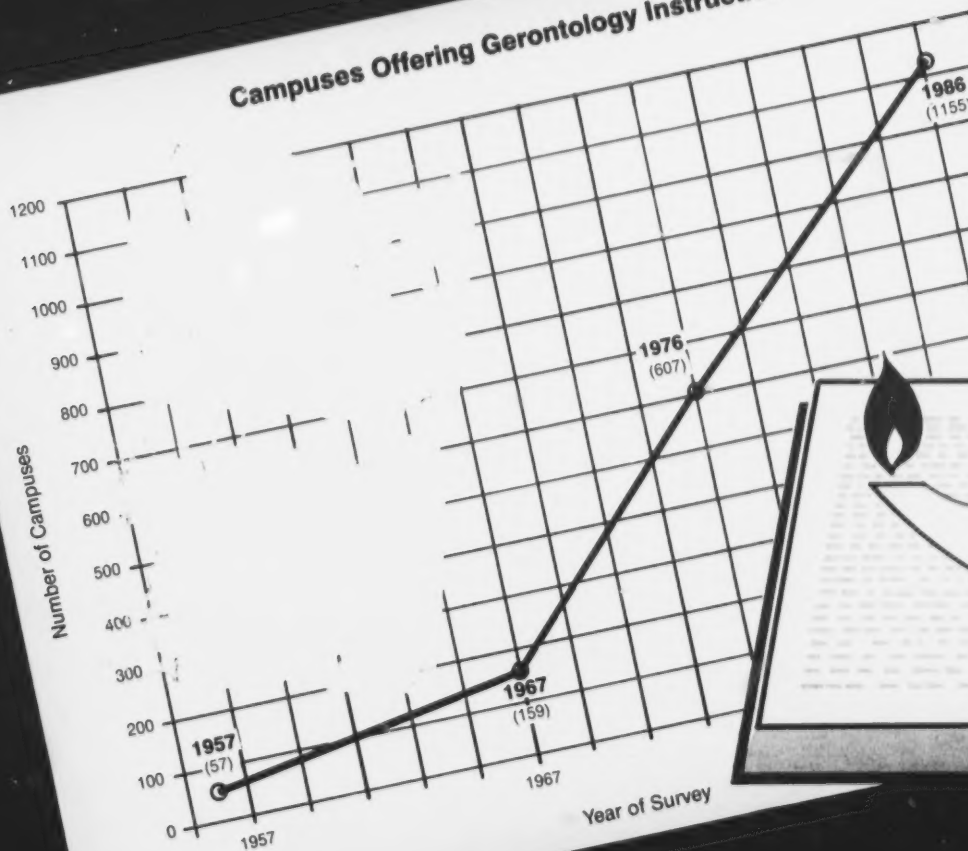
The publication summarizes a report on gerontology instruction in American institutions based on a 1985-1986 survey of over 3000 campuses. The summary examines previous knowledge of gerontology instruction and explains the purpose for the national survey, its design and goals, the questionnaires used and the data derived from them, and how the data were collected and analyzed. Summary data are presented in the following areas: the extent of current gerontology instruction, the various gerontology programs available and their structure, numbers of students completing gerontology courses, and faculty involvement in gerontology instruction. Additional information is provided on gerontology credentials by level of program (Associate, Bachelors, etc.), the number of alumni completing gerontology programs, the services and resources that are offered to students in these programs, and the support provided by the Administration on Aging for gerontology training. Conclusions are provided that deal with future research in this area of gerontology training, as well as various recommendations on what is believed to be needed in acquiring a greater insight into trends in gerontology instruction including the issue of professionals working with older people. Contains 14 references. (GLR)

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Campuses Offering Gerontology Instruction

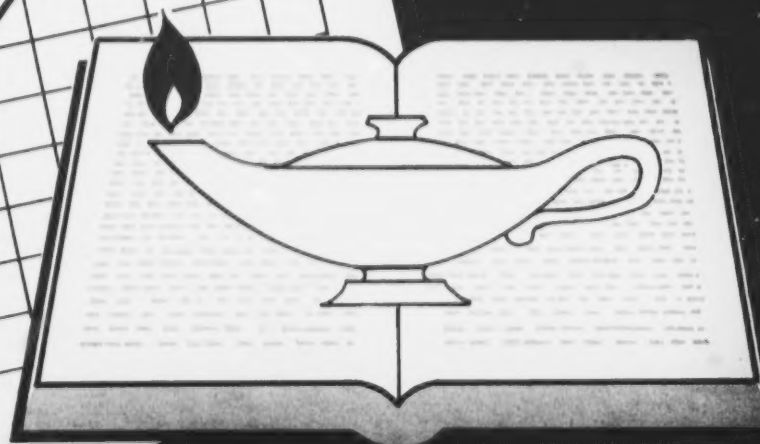


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Gerontology Instruction in American Institutions of Higher Education: A National Survey

The Association for
Gerontology in Higher Education
and
The Andrus Gerontology Center
University of Southern California

1987

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1. Previous Knowledge of Gerontology Instruction

Most gerontology instruction began after the passage of the Older Americans Act in 1965. Before that time there were individual courses offered in various colleges and universities, but very few organized programs of instruction. Some institutions such as the Universities of Michigan and Chicago had offered some community, continuing education programs for older people for several years, but no gerontology degrees or other credentials existed. If gerontology courses were offered at all, they were electives within one of the existing professions or disciplines.

Since the passage of the Older Americans Act, the Administration on Aging (AoA) has provided funds to support the development and operation of gerontology career preparation programs in American institutions of higher education. The first of these gerontology degree programs was offered at North Texas State University in 1967 with the University of South Florida creating a degree a year later. AoA funded primarily master's level instruction while including some curriculum support.

The awarding of grants by AoA was a substantial motivator for many educational institutions. Between 1966 and 1984, AoA has distributed nearly \$80 million to 185 colleges, community colleges, and universities in addition to \$15 million going to 28 educational consortia (Administration on Aging, undated). Although not all of these grants resulted in programs of instruction which continued after the completion of the grant period, many did and these programs comprise a substantial percentage of those in existence today.

AoA has continued to fund training programs over the past twenty years, but the emphasis has changed as new needs and initiatives were identified and reflected in the legislative amend-

ments. For instance, in 1973, funds were devoted to training new staff of the nutrition programs, RSVP programs, and Area Agencies on Aging. In 1975, emphasis was placed on the development of institution-wide coordination, such as Centers and Institutes. At other points, priority was given to starting new programs in community colleges or undergraduate institutions. Later the developing health care crisis led to the funding of Long Term Care Gerontology Centers at several institutions.

Continuing funding of career training was also provided by the National Institute on Child Health and Human Development (NICHD), National Institute on Aging (NIA), and the National Institute of Mental Health (NIMH). Many universities developed programs that acquired continuous funding, and a few became very visible, some conducting comprehensive training programs within one of the disciplines or professions, or as free standing degree programs.

Most of the training was initially done at the master's degree level, but bachelor's and doctoral instruction also became popular. The most common approach was to create an organizational structure that was an institution-wide coordinating body, e.g. a committee or center which would facilitate instruction across the entire institution. This allowed for drawing upon the resources of the various departments and developing a multidisciplinary instructional focus.

The result was the development of several types of organizational structures, each with its own advantages and each being modified to fit the needs of the local institution. These included: intra-departmental programs, housed within a single discipline, most often psychology, sociology, or social work; a Committee on Aging, a

cross-department group of faculty who coordinate and advocate for program of instruction; a Center on Aging, a cross-departmental structure that typically has a physical place, some staff and budget, as well as responsibility for coordinating gerontology instruction throughout the institution; and a Department or School of Gerontology. Although there are fewer Departments or Schools of Gerontology, those that exist have faculty lines, budget, offer their own courses, and occasionally gerontology degrees.

These various structures are important because of the control that they give to the gerontology faculty. The Intra-departmental programs and Committees on Aging provide relatively little control over curriculum, students, and faculty thus taking the determination of quality out the hands of the gerontology faculty. On the other hand, Departments or Schools of Gerontology have a great deal more control over these variables and thus are better able to assure that quality is achieved.

The expansion of instructional programs led to the creation of a national organization of gerontology instructional programs in 1974. Clark Tibbitts of the Administration on Aging took the lead in bringing together representatives of various instructional programs to discuss issues and plan for future developments. These meetings resulted in the creation of the Association for Gerontology in Higher Education, an organization which currently has nearly 300 institutional members. It conducts an annual conference on instruction, publishes a newsletter, offers technical assistance to new and developing instructional programs, and conducts research on the extent and consistency of gerontology instruction.

Because of the lack of any on-going monitoring or counting of gerontology instructional pro-

grams, data have always been scarce that would provide insight into the growth or decline of gerontology instruction in institutions of higher education. One of the measures used was the number of proposals received by federal agencies, but in years when little new federal money was available, or when restrictive priorities were placed on the funds, the number of submissions may have had little relationship to interest. The upshot has been many unsubstantiated statements in the literature about the growth of gerontology instruction or lack of it. Another result was a large number of uncoordinated studies of one part of the field—one profession, one state, one region, or one level of instruction—which have not been integrated into a comprehensive statement of trends in gerontology instruction in American higher education.

As the older population has grown and the number of service programs has expanded, the folk wisdom has assumed that gerontology instruction has increased comparably. However, not every observer has shared this perception, and there has been some concern that gerontology instruction has not kept pace. The editor of *Gerontology and Geriatrics Education*, for ex-

ample, recently indicated his perception that gerontology instruction was no longer developing. "I sense a lull in continued vigorous efforts to establish and maintain enlightened curricula in aging. There *are* notable exceptions. For all intents and purposes, however, there appears a silence which at times is deafening. Is this an inaccurate assessment? If not, where has everyone gone, and why?" (Levenson, 1983, p. 1). Has gerontology instruction in colleges and universities continued to grow over the past 20 years? What do we know about its current trends?

The only series of listings of gerontology instructional programs has been AGHE's *National Directory of Educational Programs in Gerontology*. The most recent edition, (Lobenstein, 1985), listed over two hundred fifty institutional members, most of which have formal programs of instruction, sensitizing students to age-related change or preparing them to enter professional employment. At the present time, AGHE membership is nearly 300 providing an indication that at least this many programs exist.

The 1984 NIA *Report on Education and Training in Geriatrics and Gerontology* reviewed the

data on gerontology instruction nationally and drew the conclusion that growth in the number of programs has been very limited.

While the precise number of institutions offering certificate and degree programs in aging is not known, it is estimated, on the basis of the membership of the Association of Gerontology in Higher Education, that the number approximates 100–125 institutions. In addition, about 100 other institutions offer course work in this area. Information from applications to the Administration on Aging suggests an even higher estimate might be appropriate (National Institute on Aging, 1984, p. 47).

The estimate of 200 to 225 institutions offering course work in gerontology appeared to be exceedingly low, given previous studies. Over 40 studies have collected data by geographic region or have examined specific professions or content areas. Individually they provide a good deal of insight into aspects of the field, but collectively they do not result in a comprehensive understanding of the field. It can be inferred from these data that the number of colleges and universities offering gerontology instruction is growing and has done so over the past 20 years.

2. National Survey of Gerontology Instruction

In spite of these multiple studies which have been undertaken to clarify the extent of gerontology instruction in higher education, there has been no planned, on-going program of data collection and dissemination that would inform the field and guide future development.

In order to initiate such a data collection effort, AGHE in cooperation with faculty at the Universities of Southern California, Oregon, and Utah undertook a national project titled *Enhancing the Quality of Gerontology Instruction*. This first project laid the groundwork for future undertakings through a survey of the extent and character of gerontology instruction in American institutions of higher education. Funded by the U.S. Administration on Aging, the survey was designed to determine how many American institutions of higher education offered credit courses in gerontology. Those institutions which were found to regularly offer several gerontology courses were surveyed further to explore the consistency of curriculum, organizational structure, faculty preparation, and funding. These data provide a baseline against which future trends can be measured and a comprehensive description of current instruction which can be used to explore curricular guidelines in several content areas and at various levels.

Objectives. The objectives of this project were to:

- determine the extent and comparability of contemporary gerontology instruction in American institutions of higher education,
- analyze the data and determine trends and needs in gerontology instruction,
- prepare and disseminate information on curriculum, organizational structure, and faculty

background that will expand the level of information regarding gerontology instruction, and

- establish and provide access to the data base so that students, faculty, government agencies, and interested others can obtain answers to frequently asked questions about gerontology instruction.

The data generated have resulted in five separate but related products. The first is a comprehensive report of the extent and comparability of gerontology instruction. Second, this summary of the full report, which is being distributed to each of the programs that participated in the survey. Third, shorter reports are being written and disseminated on various aspects of the field such as instruction by state or region, by level of institution, or by academic department. One specific set of reports has been published in the *AGHE Exchange* newsletter and presents data on the topics of (1) extent of gerontology instruction, (2) organizational structures for gerontology programs, (3) current gerontology credentials, and (4) consistency of course work. Fourth, a *National Directory of Educational Programs in Gerontology* has been compiled and distributed by AGHE. This is an update of the 1985 directory and will include information on every campus which responded to the survey. Fifth, an active data base is being maintained in AGHE's Washington, D.C., office so that questions from students, faculty, and others can be answered quickly with current data.

Survey Design. The research plan called for the survey to be carried out in three stages. The first stage was to determine which campuses offered gerontology credit courses and if they were offered, how many. Thus, the first questionnaire

was mailed to every campus in the United States. These questionnaires were reviewed when returned, and campuses which regularly offered at least four gerontology courses were included in the second stage of the project.

The second stage involved an attempt to acquire in-depth information on gerontology instruction within each department of the campus. Thus, questionnaires were sent to each academic unit that was identified on the first questionnaire as offering or coordinating gerontology credit courses. Data from the two questionnaires were combined in the analysis process in order to provide a more complete understanding of the instruction offered on any single campus.

The third stage involved a survey of approximately 30% of the faculty identified in stage two as regularly teaching gerontology courses. Questionnaires mailed to faculty asked about their gerontology preparation, the courses they taught, and their publishing record. This part of the study replicated a study by Bolton et al. (1978).

Sample. The first step was to determine the definition of an institution of higher education. It was decided that each campus would be considered to be a separate entity as is done in most higher education directories such as the *HEP 85 Higher Education Directory*. This meant for example, that each of the 19 campuses of the University of California system were dealt with separately even though they are part of a single university system. This decision allowed for data to be presented in terms of the gerontological activity on each campus rather than to combine data from several campuses and thus obscure the extent of instruction on each.

It was also decided that only accredited institutions of higher education would be included in the survey. This meant that some post-secondary

institutions, such as proprietary schools and trade schools were not included. Few of these are likely to include gerontology instruction however. A listing of accredited institutions of higher education was acquired from the American Council on Education. Of these, a small number were no longer operating; the total number of campuses to which questionnaires was sent was 3,019.

A portion of this universe was selected to receive the second, more detailed questionnaire. Campuses which regularly offered four or more credit courses in gerontology were included in this sample. Within each, every gerontology coordinating unit (program, center, committee, etc.) was sent a questionnaire. This resulted in a mailing of 1,163 questionnaires to faculty on 473 campuses for this second part of the survey.

One aspect of the second stage of the project was a request for the names of all faculty having any significant role in credit instruction in gerontology/geriatrics, whether that involvement was central or secondary to their principal teaching assignment. This request produced nearly 3,500 names. A systematic random sample of 996 faculty was drawn from the total pool for the faculty survey.

Questionnaire Construction. Three questionnaires were constructed for this project. The first, titled Gerontology Program Identification, was less than four pages in length and was designed primarily to determine the current extent of gerontology credit and non-credit courses, the year the instructional program was initiated, the type of campus, the existence of a "gerontology coordinating unit," and the names of coordinators of gerontology instruction. In addition, data on the size of the student body, highest degree offered, and institutional control (public/private) was obtained and coded from the *HEP 85 Higher Education Directory* (Higher Education Publications, 1985).

The first questionnaire was written during the

spring of 1985 and was pilot tested on the 300 AGHE member institutions. Only minor revisions were made.

The second questionnaire was titled Description of Gerontology/Geriatrics Instruction; its purpose was to collect more detail on the type of gerontology instruction from those campuses which offered several gerontology courses. This questionnaire was 18 pages long and included questions which dealt with the size of the program, number of faculty, course content, budget, and program requirements. Since this was a complicated document, it received several reviews and revisions. Each of the investigators associated with this study examined it on several occasions, it was reviewed by the AGHE Executive Committee, and it was pilot tested with 50 institutions.

The questionnaire used in the third part of the project, the faculty questionnaire, was patterned after the one created by Bolton et al. (1978) for a similar survey. It was revised to reflect insights gained in the previous study, was expanded to include new faculty interests, and was pretested on a number of faculty.

Data Collection. Questionnaires were mailed to each campus. If any gerontology faculty member or administrator could be identified from the previous surveys, existing directories, or organization mailing lists, questionnaires were sent directly to that individual. Approximately 1,000 questionnaires were addressed to individuals known to be active in gerontology instruction. If no gerontology faculty member or administrator could be identified at the institution, the questionnaire was sent to the chief academic officer whose name was included on a mailing list purchased from the American Council of Education.

The first stage involved mailing questionnaires to approximately 2,500 campuses in early October of 1985. (As noted earlier, 300 AGHE member campuses had been previously surveyed,

and 240 campuses had been surveyed by phone in the spring of 1985). A follow-up mailing to approximately 1,500 non-respondents was mailed in early December of 1985. Questionnaires were received throughout the early months of 1986. In May, a final follow-up mailing was sent to approximately 850 campuses from which no response had been received.

Of 3,019 campuses to which questionnaires were sent, responses were received from 2,220, or 73%. This is a reasonable response rate for a mailed survey and is significantly higher than the 40% which was achieved in the 1976 AGHE survey. However, there remained nearly 800 campuses from which no information was acquired.

In order to assure that the respondents were reasonably representative of the universe, a comparison of these two groups was undertaken. When the size of the campus was used for comparison, the percentage of respondents in each category was very similar to that of the total universe. When highest degree offered was used for comparison, the universe and the respondents were distributed very similarly. When campuses were compared on their affiliation, the results were the same. Although public institutions were slightly more likely to respond than private campuses, the difference was only two percent. Thus, it was concluded that the respondents to this survey did represent the universe of higher education in the United States.

In order to learn something about the large group of non-respondents, a 10% random sample of these 800 campuses was selected for a telephone follow-up. Calls were made to 80 schools to determine if any gerontology credit courses were offered. This provided some insight into the situation on these campuses and allowed for speculation on the total universe.

The second questionnaire was mailed to 1,163 individuals who were on 480 campuses which were reported to offer four or more credit courses in gerontology. Names and addresses were extracted from the responses to the first and sec-

ond questionnaire where the respondent was asked to identify a faculty member or administrator who was responsible for coordinating gerontology instruction. The assumption was made that if two individuals were identified, they headed two separate instructional programs, so both were surveyed. In a number of cases, those receiving the questionnaire reported that there were not really multiple "programs of instruction" or "coordinating units." Thus, they only returned one questionnaire which reported on activities campus wide.

The second questionnaire was mailed in January of 1986 with a reminder postcard sent two weeks later. If no response was received within two months, a reminder letter was sent. In early May, another reminder letter and copy of the questionnaire was sent. A total of 919 (77%) of these were accounted for in the responses. Of these, 719 were units of instruction (units were determined to be those reporting programs or coordinating the aging-related activities on the campus, programs were defined as having a set of requirements offered at a particular level(s) and having an aging-related separate identity and not 'integrated' throughout a program). The remaining 200 reflected duplicate reports or programs that did not meet our criterion for inclusion. These programs of instruction were located on 367 campuses.

To assure that the respondents to the second questionnaire were comparable to the universe of campuses offering four or more gerontology credit courses, a comparison was made. On the bases of campus enrollment, highest degree offered, and affiliation, the percentage of respondents in each category was very similar for the universe and the respondents.

The third (faculty) questionnaire was sent to a sample of faculty on the various campuses. After the names of faculty had been randomly chosen, packets of questionnaires were mailed to the gerontology administrator on the campus with the request that they be distributed to individual faculty through campus mail. This procedure worked effectively in many cases, but in others the questionnaires appear not to have been distributed since none was returned. The total response rate for the faculty questionnaire was nearly 44%. The response pattern suggests that, when assessing response rates by institutional types (and institutional type was the basis for sample stratification), there was no discernable pattern of systematic bias for non-respondents.

Coding and Analysis. Questionnaires were coded and entered on a microcomputer through the use of the dBase III program. This approach was used so that the data would be most acces-

sible in the future as a data base on gerontology instruction. The data were subsequently transferred to the USC mainframe computer and SPSS-X was used to generate tabulations and tables.

Research Questions. The data which have been collected are reported in the following sections. They deal with eight separate research questions, each of which is basically descriptive in nature. They are:

- What is the extent of current gerontology instruction?
- How many students are selecting gerontology courses and programs?
- What kinds of faculty are teaching gerontology?
- What are the organizational structures which have been developed?
- What are the requirements for various gerontology credentials?
- What courses are required in various instructional programs?
- What ancillary services and activities do gerontology instructional programs engage in?
- How has AoA support influenced the development of gerontology instructional programs?
- How would a typical program be characterized?

3. Data from the First Questionnaire: Extent of Current Gerontology Instruction

Of the 2,220 campuses from which responses were received, 1,155 were currently engaged in gerontology instruction. The criterion used to categorize campuses as offering or not offering gerontology instruction was the regular teaching of at least one gerontology credit course. This criterion does not signify a very high level of gerontology activity, but it does indicate whether aging content is regularly taught as a separate area of study. Using this criterion, approximately 52% of the responding campuses offered gerontology instruction.

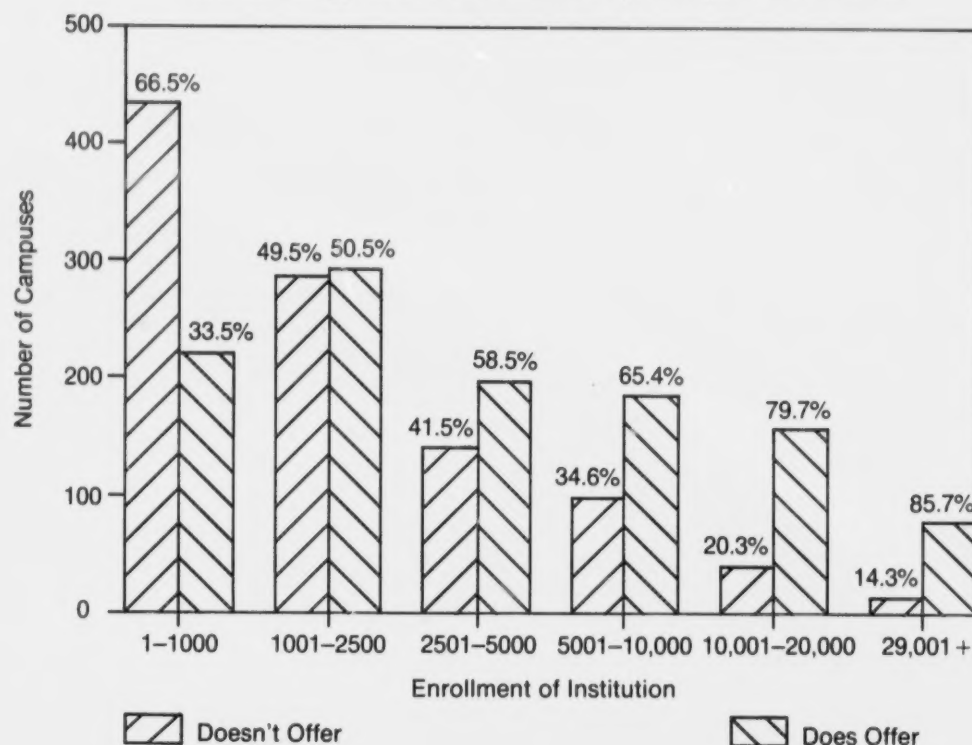
Gerontology instruction varied significantly by campus size. Campuses with less than a total of 2,500 students were considered to be "small," those with 2,501 to 5,000 were "medium," 5,001 to 10,000 were "medium-large," and those over 10,000 were "large." Small campuses were the least likely to offer gerontology courses; they comprised 55% of the respondents but only 44% of those which offered gerontology courses. Sixty-eight percent of the campuses which did not offer gerontology courses were small (Table 1). Similarly, 57% of the responses were from campuses offering the associate or bachelor's degree as their highest credential, but only 44% of the campuses offering gerontology courses had these as the highest degrees.

Large campuses were much more likely to offer gerontology credit courses than were small campuses. Graph 1 shows clearly that the very largest campuses were more likely to offer gerontology credit courses (85%) than very smallest campuses (34%), but that the total number of campuses decreased as the size increased. Thus, there are many more small campuses, but they are less likely to offer gerontology instruction.

The range in the number of credit courses offered was from one to 100; the mean number of courses per campus was 5.24 with 85 of the campuses offering 1 to 6 courses, but seven indicating more than 50 annually. Large campuses offered a higher number of courses; large

campuses (over 10,000 students) offered a mean of 11.33 courses; campuses enrolling 5,001-10,000 students offered a mean of 5.62 courses; campuses with 2,501-5,000 students offered a mean of 4.43 courses; while small campuses (2,500 and less) offered a mean of 2.69

GRAPH 1
Gerontology Credit Instruction by Campus Enrollment



courses. As would be expected, the number of students and faculty was also higher on larger campuses.

Few campuses offered non-credit instruction, such as workshops, conferences, or occasional seminars. A total of 311 campuses (about 17% of those responding to that question) offered any non-credit instruction. Again, campus size was directly related to the existence of these offerings. Larger campuses were more likely to offer non-credit instruction as were those which offered credit courses in gerontology. Since so few campuses offered non-credit courses, and since most offered credit courses at the same time, the data included in the rest of this report will deal exclusively with credit instruction.

Campuses of public institutions were somewhat more likely to offer gerontology credit instruction than campuses of private institutions. Fifty-six percent of public campuses did while 43% of private campuses offered gerontology instruction (Table 1). Public institutions on average had a larger number of students so the existence of gerontology instruction may be more closely related to the size of the campus than to its public or private control.

Campuses which awarded higher degrees were also more likely to offer gerontology credit courses. The percentage of campuses which had gerontology courses increased through the associate (37%), bachelor's (46%), graduate (62%), and Ph.D. (80%) granting campuses.

Geographic Distribution. Gerontology instruction was not evenly distributed on a geographic basis any more than it was on an institutional basis. In some states, most of the campuses offered gerontology instruction while in others relatively few of the campuses have developed this offering. For example, more than two-thirds of all responding campuses in the District of Columbia, Virginia, Rhode Island, Utah, Connecticut, and Indiana offered gerontology instruction. On the other hand, less than one third of the responding campuses in Wyoming, Alas-

ka, Vermont, Hawaii, Puerto Rico, and New Hampshire offered gerontology instruction.

Similar findings are indicated for the distribution of gerontology instruction by region. In federal regions 5 and 6 there were more campuses which offered gerontology instruction than in other regions (173 and 229, respectively). Regions 3 (58%) and 4 (60%) had the highest percentage of campuses offering gerontology instruction. However, the range in the percent-

age of campuses offering courses was only from 45% to 60%, so great differences across the 10 regions were not evident.

The distribution of campuses offering gerontology courses does not change much if a different criterion is used. For instance, if it is decided that four credit courses in gerontology must be offered in order to have a "gerontology program," then the findings do not change significantly with respect to geographic distribution.

TABLE 1.
Total Universe and Respondents:
Gerontology Credit Courses Offered.

Campus Enrollment	Total Universe		First Survey Respondents		Offers Gerontology Credit Courses			
					Offered		Not Offered	
1—1,000	919	30.4%	656	29.5%	219	19.0%	434	41.1%
1,001—2,500	790	26.2%	579	26.1%	292	25.3%	286	27.1%
2,501—5,000	438	14.5%	339	15.3%	197	17.1%	140	13.3%
5,001—10,000	384	12.7%	284	12.8%	185	16.0%	98	9.3%
10,001—20,000	243	8.0%	198	8.9%	157	13.6%	40	3.8%
20,001 and up	118	3.9%	92	4.1%	78	6.8%	13	1.2%
Missing	127	4.2%	72	3.2%	28	2.5%	44	4.2%
N = 3019			N = 2220		N = 1155		N = 1055	
Highest Degree Offered								
Two Year	1082	35.8%	784	35.3%	288	24.9%	492	46.6%
Four Year	654	21.7%	477	21.5%	220	19.0%	256	24.3%
Master's/Graduate	736	24.4%	566	25.5%	349	30.2%	214	20.3%
Doctorate	458	15.2%	346	15.6%	276	23.9%	69	6.5%
Missing	89	2.9%	47	2.1%	22	1.9%	24	2.3%
N = 3019			N = 2220		N = 1155		N = 1055	
Affiliation								
Public	1477	48.9%	1125	51.0%	629	55.6%	478	46.1%
Private	1457	48.3%	1051	46.9%	482	42.6%	537	51.7%
Missing	85	2.8%	44	2.1%	21	1.9%	23	2.2%
N = 3019			N = 2220		N = 1132		N = 1038	

Length of Time Gerontology Instruction Has Been Available. As indicated above, some gerontology instruction was started before 1970, but most campuses offered their first course in the past ten years. Ninety-nine of the campuses (10%) taught their first gerontology course before 1971. Twenty-four percent began between 1971 and 1975; 41% between 1976 and 1980; 23% between 1981 and 1985; and two percent were scheduled to start in the near future.

Larger campuses were more likely to have begun offering gerontology courses early and typically offered more courses than smaller campuses and those which have recently begun gerontology instruction. Fifty percent of large campuses began before 1975 while only 20% of small campuses did. Those campuses that began before 1971 currently offered a mean of 9.1 credit courses while those that started between 1981 and 1985 offered a mean of 2.8 courses.

Conclusions. Gerontology instruction in American institutions of higher education has continued to grow over the past thirty years, both in the number of campuses offering credit courses and the number of offerings per campus. The number of campuses offering gerontology instruction has increased from 57 in 1957 (Donahue, 1960), to 159 in 1967 (Gerontological Society, 1968), to 607 in 1976 (Bolton et al., 1978) to the 1,155 identified in this study.

With the previous reports, there has been no indication of the situation at non-responding campuses, so there was no speculation on total gerontology instruction. The current study included a telephone survey of a 10% sample of the 799 non-respondents. It found that 17 of the 80 campuses contacted (21%) did offer gerontology instruction. This led to the speculation that an additional 169 campuses do conduct gerontology credit courses, so the total is probably close to 1325 campuses (44% of the universe) which regularly offer aging instruction.

Much of the recent growth has been rather invisible; that is, it has not been accompanied by

large federal grants, national program announcements, or huge commitments of resources. It is this lack of visibility that Levenson (1983) observed, but visible or not, the growth has continued as a grass roots response to the aging of society and a recognition that gerontology is an important instructional area.

Growth has also occurred in the number of courses offered on each campus. Bolton et al. (1978) reported that the mean number of courses listed in the 1976 AGHE *National Directory of Educational Programs in Gerontology* was 3.24 for the 607 campuses offering gerontology instruction. The data reported here indicated a mean of 5.24 courses per campus, a substantial increase, especially when considering that the number of campuses offering gerontology instruction has nearly doubled. Since most of these campuses offering gerontology for the first time start with only one or two courses, it can be inferred that the mean number of courses has continued to increase on campuses with existing gerontology offerings in order to result in an increase in the total mean. That is, in calculating the mean, the one or two courses offered by newly involved campuses is more than offset by course growth on the campuses where gerontology has been offered for a longer time.

This growth, however, does not mean that all campuses currently offer gerontology instruction. Approximately one-half of the responding institutions do. These were typically campuses that had a larger number of students and those that offered graduate degrees. The size distinction is significant because most American institutions of higher education are small. Fifty-six percent of campuses responding to this survey had less than 2,500 students. Five hundred eleven of the 1,155 campuses offering gerontology instruction have less than 2,500 students. So although the percentage of small campuses which offered gerontology instruction is lower than that of large campuses, much of the current instruction is done on small campuses (Table 1). Small campuses also provide a great potential

for future growth. Of the small campuses responding, 702 did not offer gerontology instruction while only 53 of the large campuses had no gerontology credit courses. Thus, the first gerontology course remains to be developed in 68% of the small campuses which responded to this survey plus an unknown but undoubtedly higher percentage of non-respondents.

Much development must occur before each student in American institutions of higher education will have gerontology instruction available to him/her. However, the growth to date has been both substantial and continuing, and there is every reason to assume that it will continue in the future. From existing data, it can be suggested that this growth will occur in two areas. First, those campuses which do not currently offer gerontology courses will continue to initiate them. The few large campuses which offer graduate degrees will have gerontology courses within a few years with the exception of a small number of technical schools. Smaller campuses, especially community colleges will be slower to develop gerontology instruction, but most will include it by the turn of the century.

Second, gerontology instruction on larger campuses will continue to expand and differentiate. The number of courses per campus will continue to grow as additional departments initiate a course and others develop full programs of instruction. This will mean that students in many departments will have the opportunity to be exposed to gerontology instruction and to see its relationship to their major.

Overall, these data confirm that a great deal of progress has occurred in making gerontology content available to college students but that much potential development remains to be accomplished. The larger campuses which offer the greatest diversity of content have initiated gerontology instruction first, but many of the smaller campuses, especially the community colleges, have yet to create their first gerontology course. The coming years will see continu-

ing expansion of gerontology instruction on small campuses and those that offer no graduate instruction. Gerontology instruction on every campus is a viable objective for the future, and when it is achieved, it will provide the basis for eradicating the stereotypes and misinformation

about aging and older people.

However, the goal of one gerontology course per campus is a modest and interim one. In the long run, gerontology instruction will need to be available to every student if societal attitudes and values are to be changed. The implication is

that continued expansion of course offerings within institutions will be needed in order to achieve gerontological literacy, and to assure that our society will seek justice and dignity for our older citizens.

4. Students Completing Gerontology Courses

The importance of counting the number of campuses which offer gerontology courses is related to the number of students who complete the courses. It is the students who will find employment in the field of aging, teach or conduct research, assist an older family member, or modify their own aging in a way that is beneficial to themselves and society.

Campuses responding to the survey indicated

that approximately 335,000 unduplicated students had completed credit courses in gerontology and over 200,000 had completed non-credit workshops and seminars. Many of the respondents indicated that precise records were not available, so those totals must be viewed as estimates rather than actual course registrations.

Larger campuses reported serving larger num-

bers of gerontology students. As Table 2 shows, they reported a mean of nearly 900 students having completed credit courses in gerontology while small campuses reported a mean of slightly over 130. The situation with non-credit students was very similar. Large campuses reported averaging over 700 non-credit students while small campuses reported a mean of less than 100.

TABLE 2.
Mean Number of Graduates Who Have Completed Gerontology Courses by Campus Enrollment.

Campus Enrollment	Number of Credit Graduates		Number of Non-Credit Graduates	
	Mean	Cases	Mean	Cases
1 to 1,000	131.5	251	56.7	216
1,001 to 2,500	184.7	265	86.2	232
2,501 to 5,000	261.2	177	241.4	140
5,001 to 10,000	395.3	155	340.0	101
10,001 to 20,000	841.3	116	710.8	90
20,001 and over	889.9	41	815.3	38
Overall	321.9	1005	239.1	817

5. Data from the Second Questionnaire: Gerontology Programs

The data on gerontology instruction provided in the next sections of this report are drawn from the second questionnaire which was sent to each campus offering at least four gerontology credit courses. This number was selected because it was seen as the minimum needed to have a "program of instruction." A total of 1,163 programs were sent the second questionnaire, with 919 responding. Of these, 709 programs of instruction were identified on 351 campuses. Campuses with a smaller number of students were least likely to offer four gerontology courses and thus be included in this sample. For instance, as Table 3 shows, 57% of all campuses had less than 2,500 students, but only 19% of the campuses which offered a program of gerontology instruction were under 2,500. Likewise, it is clear from the data that the number of gerontology instructional programs per campus varied with the size of the campus. Table 3 indicates that small campuses made up 22% of the respondents to the second survey but that these campuses offered only 19% of the instructional programs. The very smallest campuses (less than 1,000 students) which offered programs of gerontology instruction had a mean of 1.75 programs per campus, while the very largest campuses (20,000 and over) offered a mean of 2.66 programs per campus.

Campuses which offered higher level degrees were also more likely to offer programs of gerontology instruction. Nine percent of those that offered a gerontology instructional program had the associate degree as the highest credential, while 51% of campuses offering a gerontology program offered the doctorate degree (Table 3). Likewise, campuses offering the associate or bachelor's degree as the highest credential were less likely to offer gerontology programs than were those awarding the doctorate.

Private schools showed a lower level of gerontology instruction than did public institutions. Private schools comprised 48% of the total universe of higher education, but only 31% of the campuses that offered a program of gerontology instruction (Table 3). The mean number of gerontology instructional programs at private schools (1.95) was slightly lower than those offered at public campuses (2.08).

The size of many gerontology programs is expected to increase in the next five years. Approximately 205 of the responding programs expected to increase their course offerings in gerontology, 65 expected to create a program, and 9 indicated that a concentration would be created.

TABLE 3
Comparison of Second Survey Sample and Respondents.

Campus Enrollment	Total Sample		Second Survey Respondents (Campuses)		Second Survey Total Sample (Programs)		Number of Programs		Programs per Campus
1–1,000	919	30.4%	28	8.0%	66	5.7%	49	6.9%	1.75
1,001–2,500	790	26.2%	49	14.0%	129	11.1%	86	12.1%	1.75
2,501–5,000	438	14.5%	50	14.2%	127	10.9%	77	10.9%	1.54
5,001–10,000	384	12.7%	67	19.1%	240	20.6%	127	17.9%	1.89
10,001–20,000	243	8.0%	89	25.4%	282	24.3%	189	26.7%	2.12
20,001 and up	118	3.9%	68	19.4%	319	27.4%	181	25.5%	2.66
Missing	127	4.2%	0		0		0		
N = 3019			N = 351		N = 1163		N = 709		
Highest Degree Offered									
Two Year	1082	35.8%	38	10.8%	115	9.9%	62	8.7%	1.63
Four Year	654	21.7%	37	10.5%	70	6.0%	60	8.5%	1.62
Master's/Graduate	736	24.4%	116	33.4%	343	29.5%	207	29.2%	1.78
Doctorate	458	15.2%	151	41.1%	503	43.3%	362	51.1%	2.40
Missing	89	2.9%	12	3.4%	132	11.3%	18	2.5%	1.50
N = 3019			N = 351		N = 1163		N = 709		
Affiliation									
Public	1477	48.9%	226	64.4%	819	70.4%	470	66.3%	2.08
Private	1457	48.3%	113	32.2%	313	26.9%	221	31.2%	1.95
Missing	85	2.8%	12	3.4%	31	2.7%	18	2.5%	1.50
N = 3019			N = 351		N = 1163		N = 709		

6. Data from the Third Questionnaire: Faculty Involvement in Gerontology Instruction

The second questionnaire asked respondents to indicate the number of faculty who were paid by the gerontology instructional program or who were associated with it by having a joint appointment, teaching courses, or supervising trainees. A total of 1,251 faculty were paid by 292 gerontology programs, and 2,341 were associated with 297 programs. Table 4 shows that the number of paid faculty was often smaller than the number associated with the program. The difference was not great at the associate and undergraduate level, but at the graduate, master's, and doctoral levels, more than twice as many faculty were associated with as were paid by the programs.

Bolton et al. (1978) conducted a study of gerontology/geriatrics instruction in post-secondary educational institutions in the United States. A total of 397 faculty members from 169 institutions responded to that survey. The third survey conducted as part of the cur-

rent study replicated parts of that study, so both descriptive and comparative data will be presented here. Since the number of respondents in the third survey (438) was very similar to the

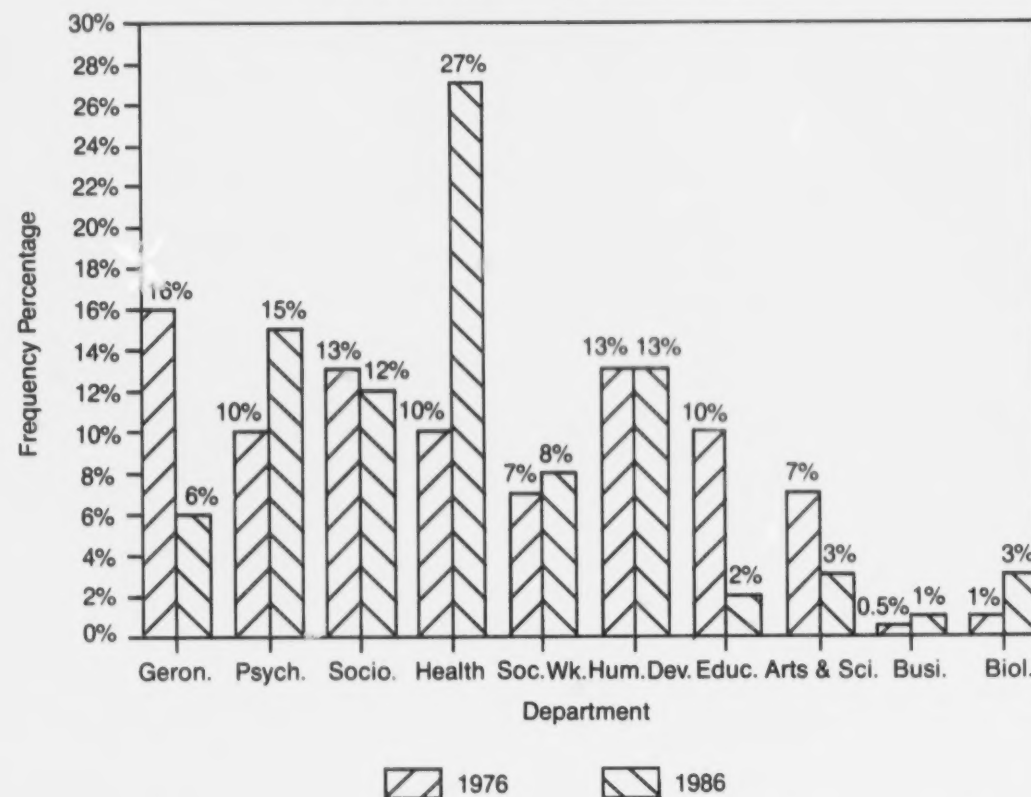
number in the previous study (397), comparisons between the two samples were facilitated.

Respondents were asked to name the department where they held their academic appoint-

TABLE 4
Faculty Reported by
Gerontology Program.

Level of Program	Faculty Paid		Faculty Associated	
	Number of Units	Mean Number of Faculty	Number of Units	Mean Number of Faculty
Associate	63	12.4	61	9.8
Undergraduate	75	9.9	74	14.4
Bachelors	194	12.4	191	11.3
Graduate	80	9.7	76	13.9
Masters	161	9.2	153	11.2
Ph.D.	55	11.4	50	8.7

GRAPH 2
Primary Department Appointment



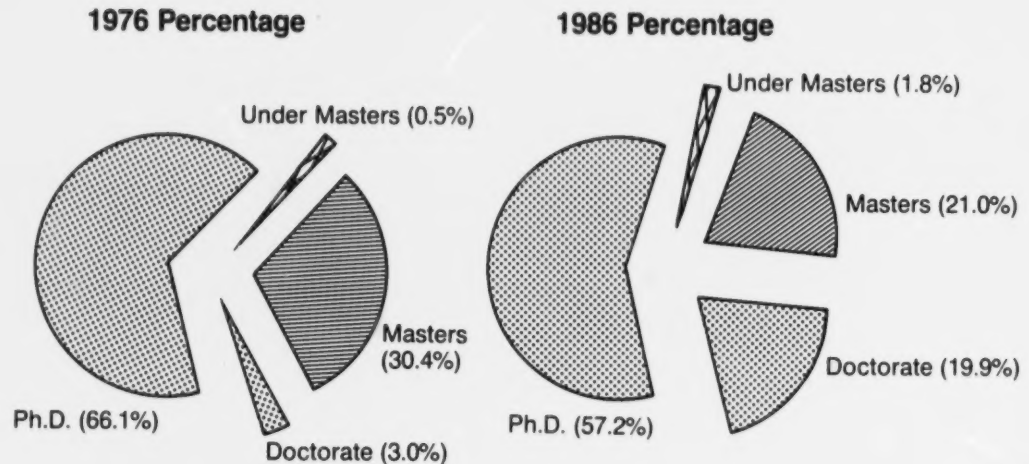
ment in order to determine the faculty member's primary field of origin and thus provide an estimate of the distribution of faculty based upon "field" affiliations rather than teaching assignments. This distinction was especially important when it is recognized that aging-specific content is frequently offered by academic units not designated as "gerontology/geriatrics."

As Graph 2 shows, several changes in the distribution of faculty teaching gerontology/geriatrics can be seen. The most dramatic growth occurred in the number of faculty representing the health professions, most of whom are based in medical centers. On the other hand, the greatest decline occurred in faculty teaching within gerontology academic units. Since data from the other parts of this study show an increase not a decline in the number of gerontology academic units, it may well be that the growth in the total number of faculty accounts for this apparent decline in faculty claiming gerontology as their field of affiliation.

Graph 3 indicates the highest earned degree of faculty in 1976 and 1986. The categories used include "Less than Master's" which represents persons working primarily in allied health professions field (physical therapy, nursing, etc.) where a first professional degree is the principal credential held by many faculty. The Ph.D. category indicates those faculty holding the traditional research doctorate while the "Doctorate" category includes an array of applied doctorates such as Dr.PH, DDS, MD, and Ed.D. Again, the growth in the number of health professions faculty is obvious in the data.

Although 1976 data are not available, the 1986 data show that 44% of the respondents have had some formal instruction in gerontology/geriatrics as part of their academic preparation. This means, however, that 56% have not had such preparation and have relied totally on self-study or similar forms of education. The distribution of faculty with academic preparation across the various institutional types shows those from medical centers and junior/community colleges

GRAPH 3
Highest Earned Degree: Percentages



having the least (32% and 35% respectively) while those in college and university settings have the most (46% and 47% respectively).

When the academic ranks of gerontology/geriatrics faculty from 1976 and 1986 were compared, there was a small increase in the proportion of faculty holding the rank of professor, but otherwise little change had taken place in the distribution of faculty across the ranks. However, the proportion of faculty holding tenure has shown an increase from 48% to 57% over the 10 year period. This appears to reflect the increased seniority of the faculty rather than movement to tenure eligible positions, since the total percentage of faculty who are on tenure tracks or are tenured has declined from 87% to 82%.

Teaching Experience. Two indicators of teaching experience were ascertained: the number of

years gerontology/geriatrics faculty have been involved in post-secondary teaching, and the number of years they have been teaching courses with gerontology/geriatrics as the principal content.

Faculty teaching in 4-year colleges indicated the longest tenure as teachers in post-secondary education with an average of 15 years experience; university faculty indicated a mean of 14 years; medical center faculty, a mean of 13 years; junior/community college faculty, a mean of 11 years. The average length of service for all categories was 13.2 years of post-secondary teaching experience. While comparable data are not available for other fields and disciplines, this average would appear to be low. Trend data gathered in the future will provide an indication of the maturation of the profession.

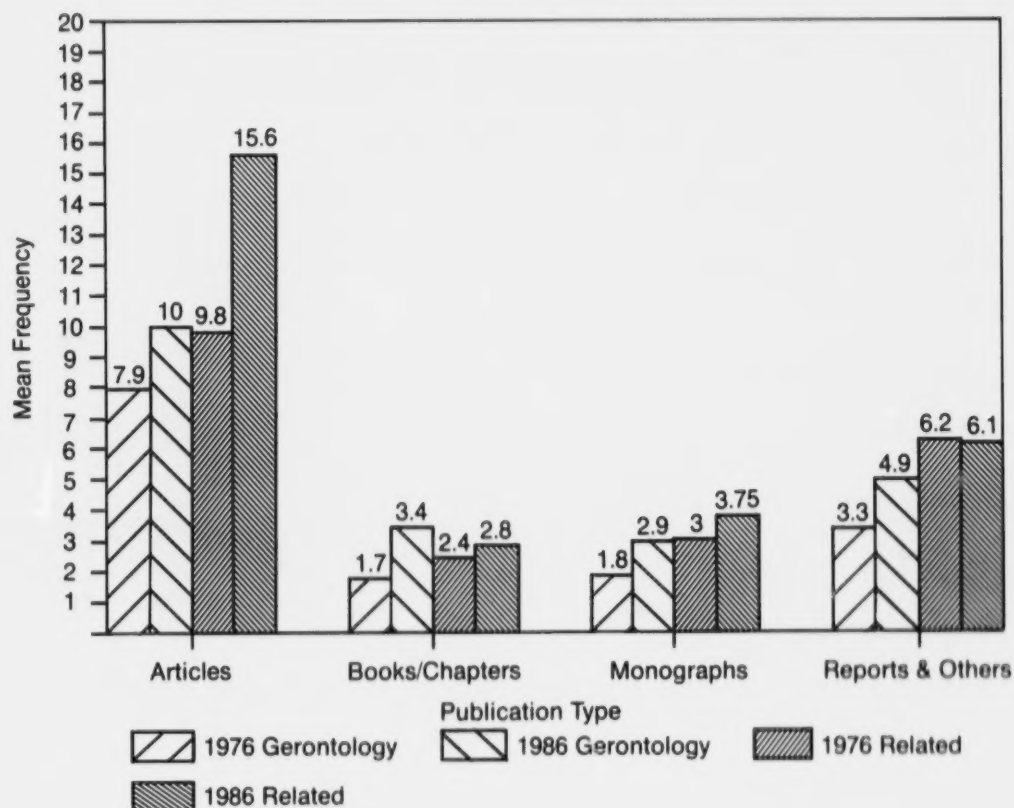
The average number of years of teaching

gerontology/geriatrics has increased modestly over the 10 year period. Faculty in 1976 indicated an average of slightly over five years experience teaching gerontology/geriatrics while those surveyed in 1986 indicated an average of nearly seven years. Additional data on the 1986 group indicated that the accumulation of experience is only loosely associated with additional years of age. For example, while those ages 35 to 45 (n = 167) indicated an average of five years experience teaching gerontology/geriatrics, those ages 46 to 55 (n = 113) indicated a mean of six years, those ages 56 to 65 (n = 84) a mean of eight years, and those over age 65 (n = 15) an average of 10 years experience teaching gerontology/geriatrics. While tracing the movement of faculty into and out of the mainstream of instruction in our field is difficult, we can detect a growing level of experience accumulated by those who are older.

The average teaching load in gerontology/geriatrics has increased slightly over the 10 year period from 1976 to 1986. When compared with reported annual teaching loads in all courses, a similar increase has occurred with the 1976 mean being 3.7 courses per year and the 1986 mean being four courses per year. While we do not have sufficient data to fully understand the meaning of these changes, we can see that gerontology/geriatrics instruction, on average, represents only approximately 50% of the average teaching load for respondents.

Another perspective can be gained by examining the proportion of faculty teaching a total of four or fewer courses in contrast to that same proportion teaching gerontology/geriatrics. The proportion of faculty respondents teaching four or fewer courses was 73.3% in 1976 but only 46.8% in 1986. In comparison, the proportion of faculty teaching four or fewer *gerontology/geriatrics* courses was 89% in 1976 and 85.5% in 1986. Thus, while nearly three-fourths of the faculty in 1976 taught four or fewer courses and nearly 90% of those were gerontology/geriatrics, only about one-half taught four or fewer courses

GRAPH 4.
Publications in Gerontology and Related Fields.



in 1986 with almost as many (85.5%) being gerontology/geriatrics. In other words, while the proportion of instructional effort devoted to gerontology/geriatrics has remained relatively stable, the total instructional effort has declined by nearly 50%. A more detailed analysis of these data will probably reveal that the proportion of faculty teaching in medical centers at less than

full-time (classroom instruction) significantly affects this outcome.

As one might expect, given the previous data that suggested a general maturing of the teachers of gerontology/geriatrics, the respondents reflect some changes in proportional age distribution. The decline of the under 30 group from 7.7% in 1976 to .7% in 1986 and the growth of

the 41-50 group from 24.8% in 1976 to 33.7% in 1986 would seem to support the notion of overall maturation within the field.

In the ten years between 1976 and 1986, the percentage of women in the gerontology/geriatrics faculty have increased from 42.5% to 49.5%. This probably is a reflection of the total change within higher education in which women are increasingly acquiring faculty roles.

Faculty Publications. Publication rates among faculty in most academic fields are thought to reflect the level of scholarly accomplishment for the field. In applied fields, however, one can expect subscription to this notion will be divided between the "academics" and the "practitioners." Thus, the data regarding publication rates are presented as a whole (Graph 4).

Generalizations regarding these data are difficult given the wide variety of interpretations of quality presently employed in American higher education. However, given the acceptance of publication rates and "reputational" indices presently employed for the "established" disciplines and professions, it is timely to begin to examine the inclination of gerontology/geriatrics faculty to become involved in the "publications game." The data presented reflect only summary statistics (means) and thus subsequent analyses will need to focus on the potential presence or absence of significant differences over the 10 year period.

The publication of journal articles has shown the most noticeable increase since 1976. An examination of the average number of articles in gerontology and related fields indicates that faculty identified with medical centers publish much more (mean = 16) than faculty representing other institutional types (university mean = 9.6; college mean = 5.4; junior/community college mean = .3).

Faculty Salaries. Respondents were asked to indicate their salary within a range of categories reflecting \$5,000 increments (Table 5). The mean

TABLE 5
Salaries by Institutional-Type.

Salary	JCC	College	University	Medical	Total
\$1,000- \$10,000	4 30.4% 21.1%	1 7.7% 2.2%	5 38.5% 2.0%	3 23.1% 3.7%	13 3.3%
\$10,001- \$15,000	0 0.0% 0.0%	0 0.0% 0.0%	1 50.0% 0.4%	1 50.0% 1.2%	2 0.5%
\$15,001- \$20,000	1 9.1% 5.3%	3 27.3% 6.5%	4 36.4% 1.6%	3 27.3% 3.7%	11 2.8%
\$20,001- \$25,000	4 11.1% 21.1%	4 11.1% 8.7%	27 75.0% 10.8%	1 2.8% 1.2%	36 9.0%
\$25,001- \$30,000	2 3.0% 10.5%	12 28.2% 26.1%	43 65.2% 17.1%	9 13.6% 11.0%	66 16.6%
\$30,001- \$35,000	4 4.3% 21.1%	15 16.0% 32.6%	60 63.8% 23.9%	15 16.0% 18.3%	94 23.6%
\$35,001- \$40,000	3 4.8% 15.8%	5 8.1% 10.9%	43 69.4% 17.1%	11 17.7% 13.4%	62 15.6%
\$40,001- \$45,000	1 2.3% 5.3%	3 6.8% 6.5%	33 75.0% 13.1%	7 15.9% 8.5%	44 11.1%
\$45,001- and Higher	0 0.0% 0.0%	3 4.3% 6.5%	35 50.0% 13.9%	32 45.7% 39.0%	70 17.6%
Total	19 4.7%	46 11.6%	251 63.1%	82 20.6%	398 100%

for all faculty was estimated to be \$32,500. Approximately 32% of the respondents indicated salaries at or below \$30,000; while some of these may be affiliated with poorer colleges or junior/community colleges, the majority were

most likely among the respondents who indicated part-time employment status. Nearly 29% of the respondents indicated salaries of \$40,000 or higher and 17.6% reported salaries of \$45,000 or higher.

Conclusions. In summary, these data reflect some clear differences in the teachers of gerontology in 1986 when compared to those of 1976. Primary departmental appointments in 1976 were clustered more in the social sciences, particularly gerontology, psychology, education, and sociology. The health professions, psychology, and human development have registered the most dramatic increases in 1986. These data are not too surprising given the intense focus of the National Institute on Aging on health care and related disciplines beginning in the early 1980s.

The data also reflect a change in the academic training of the faculty over the 10 year period. There are fewer faculty holding the traditional research doctorate, the Ph.D., in 1986, and there are more faculty holding "less than a master's degree." These changes likely reflect the growing emphasis on the professional training in gerontology/geriatrics that has replaced the traditional social and behavioral sciences emphasis which was evident in the earlier history of the field. It may also be caused by increased instruction in health fields, many of which rely on advanced practitioners for in-

struction, rather than highly educated researchers.

The data regarding teaching experience and teaching loads suggest several interesting hypotheses. One might speculate that the limited number of years teaching experience for faculty in 1986 (a mean of 13.2 years) and the even lower averages for teaching experience in gerontology/geriatrics (five years in 1976 and 6.8 years in 1986) might indicate that faculty have moved to gerontology/geriatrics instruction from either non-teaching roles or have only recently become transfers from other fields. Coupled with the data that indicate that in 1986 nearly 64% of the faculty were over age 40 and 30% were past age 50, these speculations would seem reasonable.

The data regarding teaching loads would support the notion of transfers from other fields. With faculty principally teaching non-gerontology/geriatric courses and with those increasing from 1976 to 1986, a teaching force is developing that is only peripherally involved in the subject as a primary emphasis. In 1986 the average load in gerontology/geriatrics was 1.7

courses annually while the average taught in other fields was nearly three. Another perspective may be that there are a number of persons involved in gerontology/geriatrics on a part-time basis—as potentially illustrated by the large number of faculty in both 1976 and 1986 teaching one, two, or three courses per year.

Clearly, the scholarly output of the faculty would appear to be improving. The contributions by those within the health professions—as reflected by medical center faculty publications—is in keeping with the current trends toward focusing the field on the health aspects of aging.

In conclusion, one might consider the question of whether the field is still in search of a stable and significant community of scholars. Given our propensity to compare ourselves with our colleagues in other fields and disciplines our comparisons show considerable subjective differences in our "strength of focus" on gerontology/geriatrics as a primary field of endeavor. Thus, gerontology faculty may have a difficult time developing a strong commitment to this interdisciplinary field.

7. Structure of Gerontology Instructional Programs

Gerontology instruction is organized in a variety of ways on the many campuses. In the past, gerontology courses were typically offered within existing departments or schools; seldom were there separate organizational structures which were created to administer the gerontology curriculum. As the data from the survey indicate, this is changing.

One hundred six gerontology programs were reported to be housed in a gerontology academic unit—a center, department, institute, or committee that was responsible for the coordination of gerontology instruction on the campus. The remaining programs were located within an existing department or had virtually no organizational structure. Three hundred fifty-nine were gerontology units, 38 were geriatric units, and 22 units considered themselves both. Since organizational structure of gerontology programs is of interest in the rest of this section, the data included will deal only with the 278 gerontology/geriatrics academic units and will not include those programs that do not have a separate structure for gerontology instruction.

The titles of gerontology academic units included the expected range of responses. The most common title, a program, was reported by 108 (41%) of the 266 respondents. A variety of titles comprising the "other" category was reported by 74 (28%) of the respondents, while the title "center" was reported by 45 (17%); "institute" was reported by 13 (5%), "department" by 12 (5%), "division" by 9 (3%), and "committee" by 5 (2%) of the respondents.

Rather than referring to these coordinating units by their specific titles, in the rest of the report the term "program" will be used in a generic sense because it is easier and more understandable.

There have been few previous examinations

of the extent of various types of gerontology organizational structures. Bolton et al. (1978) carried out a mail survey of 402 institutions of higher education that had two or more gerontology courses listed in the AGHE *National Directory of Educational Programs in Gerontology*, First Edition (Sprouse, 1976). They received only a 42% response rate, but their data on 169 campuses are the most complete previous report on the organizational structures of gerontology instructional programs.

A comparison of their data on those 169 campuses with the 1986 data on the same campuses gives an indication of the progress that has taken place within campuses that have had programs of instruction for at least 10 years. The 1986 data show that substantially more gerontology instruction programs have developed within these 169 campuses and that more have taken the title institute or center (Table 6).

Administrators' Titles. The title of the gerontology program administrator was also an indication of the organizational structure. The most common title, director, was reported by 136 (51%) of the 268 responding programs, with coordinator being used in 66 (25%), and chair-

person being used in 38 (14%). The percentage of administrators having the title director was 14% higher than that reported by Bolton et al. (1978), but the other titles are difficult to compare since Bolton separated department chairperson from program chairperson.

Another area of organizational structure to consider is the title of the person who supervises the head of the gerontology program. This person most frequently had the title of Dean, with Chairperson and Vice President also being used on a number of campuses. Campuses which offered gerontology degrees were more likely to have the gerontology unit overseen by a dean while campuses which offered only undergraduate instruction frequently had a chairperson in that position.

Program Authority. A clear measure of the gerontology program's autonomy and independence is its placement in relation to other departments. A total of 106 (38%) of the 278 responding gerontology academic units were free-standing while as many as 141 (51%) were located within another department. Academic units which were headed by a Director were more likely to describe their structure as separate from other departments while those headed by a Professor, Head, Dean, or Other were more likely to be housed within another department.

Another aspect of organizational structure was the extent of authority over curriculum and faculty. Only 19 of the programs (4%) were limited to coordinating courses offered by other departments without being able to offer a credential. Fifty-six (13%) had the authority to offer credit courses but not a credential. A total of 362 (83%) of the gerontology programs offered courses and administered a credential, indicating substantial control over the quality and type

TABLE 6.
Title of Organizational Structure.

	Committee/ Program	Center/ Institute	Department	Total
Bolton et al. 1978 data	51	19	16	86
Peterson's 1986 followup of the 1978 sample	49	51	10	110

of instruction, a clear step in program institutionalization.

Most programs did not have their own faculty. Only 84 (20%) had the authority to provide tenure to their faculty while the vast majority did not have this prerogative but relied on the tenure process being carried out within another department or school.

Conclusion. From the data presented here, and from anecdotal evidence of individual programs, it appears that gerontology instruction has recently passed a milestone, one which has seen a

shift from rapid development of gerontology instructional programs, frequently aided by external funding, to a more traditional approach in which the resource requirements of gerontology instruction and the organizational structures are similar to other academic programs of the institution. Bolton (1981) has speculated on this change previously and has suggested that from this point on, the expectation must be for gerontology faculty to be equal or superior to other faculty as measured by the traditional measures of quality—publication, research, and teaching—rather than achieving success through their

facileness at acquiring federal grants.

Gerontology organizational structures reflect this substantial change as an increasing number of institutions recognize the importance of the field by granting the program authority for budgets, curriculum, and tenure. This is an appropriate and necessary step in the attainment of program stability, and as it occurs on an increasing number of campuses, it will result in enhanced quality for students, faculty, and the community.

8. Financial Resources Available

Gerontology instructional programs generally had small budgets. Although financial resources were undoubtedly provided by other departments, 51% of the gerontology programs had an annual budget of less than \$50,000 (Table 7). This suggests that there was not a large instructional or administrative staff that was paid by the gerontology program and that the resources commanded were quite minimal compared with other departments, centers, and institutes.

Gerontology instructional units had relatively limited budgetary control. In approximately half

of the programs (55%), the gerontology unit had no separate budget at all. Centers, institutes, and departments were the organizational structures most likely to have their own budgets while schools, committees, and divisions were the least likely to do so. This suggests that in half of the cases, the gerontology program depended upon the staff and program support of some other department or school.

Almost forty percent (39%) of the gerontology programs reported that they had the authority to pay the salary of the faculty involved in gerontology instruction. Again, centers, institutes,

and departments were most likely to have this authority while committees, schools, and divisions were the least likely to be able to do so.

The data showed few differences in the sources of funding between the older and newer programs (Table 8). The average institutional support for older programs (over 10 years of age) was approximately equal (74%) to that for institutions starting course work between 1981 and 1985 (72%). The programs which are proposed to be started in the future identified 100% of their funding as institutional support. However, there were only a few responses in this category.

TABLE 7.
Gerontology Program Budget by Type of Academic Unit.

Budget	Prog.	Other	Center	Inst.	Dept.	Commit.	Div.	Total
None	3 4.8%	11 29.7%	0 0.0%	1 10.0%	0 0.0%	0 0.0%	1 33.3%	16 9.9%
\$1-\$10,000	14 22.2%	6 16.2%	2 5.7%	1 10.0%	1 11.1%	2 50.0%	0 0.0%	26 16.1%
\$10,000-\$50,000	19 30.2%	11 29.7%	2 5.7%	2 20.0%	5 55.6%	2 50.0%	0 0.0%	41 25.5%
\$50,001-\$100,000	11 17.5%	4 10.8%	8 22.9%	1 10.0%	1 11.1%	0 0.0%	0 0.0%	25 15.5%
\$100,001-\$250,000	10 15.8%	2 5.4%	13 37.1%	2 20.0%	0 0.0%	0 0.0%	1 33.3%	28 17.4%
\$250,001-\$500,000	5 7.9%	3 8.1%	6 17.1%	3 30.0%	11.1 8.3%	0 0.0%	1 33.3%	19 11.8%
\$500,001 and up	1 1.6%	0 0.0%	4 10.8%	0 0.0%	1 11.1%	0 0.0%	0 0.0%	6 2.5%
Total	63 100%	37 100%	37 100%	10 100%	9 100%	4 100%	3 100%	161 100%

Federal Funding. The federal portion of the funding showed some difference between older and newer programs, as did private aid (Table 8). Overall the differences were slight, with all categories other than institutional support amounting to less than 27%. Programs that began more recently seem to have a greater range of financial sources that they are relying on. It is impossible from the current data to tell if the older programs also depended initially on more scattered sources of funding. From anecdotal evidence, it is more likely that the older programs initially did depend on federal funding, but as this source declined, other resources were tapped. The newer programs, never having had access to as much federal support, have relied from the start on a broader array of support. The programs which are yet to be started indicate no expectation of federal support, but intend to rely on institutional support.

There has been a concern by some persons in the field that gerontology instructional programs were too heavily dependent upon funding from federal agencies, funding which if terminated could mean to end of the gerontology instruc-

tion. In a 1977 study of 169 colleges and universities which offered at least two gerontology credit courses, Bolton, Eden, Holcomb, and Sullivan (1978) reported on the extent to which gerontological programs were reliant on federal support. One-third of the institutions received part or all of their funding for aging instruction from the federal government; overall, federal grants paid 34.3% of the total program costs.

Conclusion. Data from this survey suggest that federal funding is not currently a major source of program support (Table 8). Regardless of the length of time the program had been in existence, over 73% of the support came from institutional sources, and the programs with the longest history which reported the highest level of federal support indicated only 15% of their budgets were from federal sources.

TABLE 8.
Mean Percent of Sources of Funding by
Year Gerontology Instruction First Offered at Campus

Budget Funding Source	Year Courses First Offered				Overall
	Before 1971	1971-1975	1976-1980	1981-1985	
Institutional Support	76.9%	80.8%	74.3%	73.6%	76.7%
Federal Support	15.3%	8.2%	9.1%	9.8%	9.9%
State Support	3.2%	1.6%	2.6%	3.4%	2.4%
Private Support	1.9%	2.1%	3.1%	4.3%	2.6%
Alumni Support	0.4%	0.9%	1.4%	4.0%	1.3%
Fees	0.9%	2.2%	1.1%	3.5%	1.6%
Other Sources	1.7%	2.2%	4.7%	0.9%	2.8%
Total of Means	100.3% N = 73	98.0% N = 96	96.3% N = 167	99.5% N = 49	

9. Gerontology Credentials

Approximately half of the programs of instruction culminated in the awarding of a gerontology credential. A wide variety of names was given to the gerontology credentials. The most common was the certificate, 195 of which were offered by the responding institutions. The degree in gerontology was the second most common with 67 available. Other credential names were used by 146 programs; in order of frequency, they were minor, specialization, and concentration (Table 9).

In 1977, Bolton, Eden, Holcomb, and Sullivan (1978) collected data on the gerontology credentials awarded by programs listed in the 1976 AGHE *National Directory of Educational Programs in Gerontology* (Sprouse, 1976). They received responses from 123 programs and reported that the most common credentials at that time were majors (34%), minors (23%), concentrations (20%), and specializations (12%). It is

interesting that the certificate has become so popular in the past 10 years, significantly overshadowing the other designations.

Current Credentials Awarded. As Table 9 indicates, degrees in gerontology were primarily found at the bachelor's and master's level while the minor and concentration were most frequently offered at the bachelor's level. The specialization was most common at the master's level.

Since the certificate and degree in gerontology were by far the most common credentials identified in the current study, only those two will be included in the remainder of this report. Both of these credentials are typically recorded on the transcript of the graduate. Degrees obviously would be, but 76% of the certificate programs also listed the credential on the student's transcript.

Table 9.
Gerontology Credentials by Level of Program

Type of Credential	Level of Program				Total
	Associate Degree	Bachelor's Degree	Master's Degree	Doctorate	
Certificate	22	80	83	10	195
Degree in Gerontology	14	32	21	0	67
Minor	0	43	5	1	49
Concentration	0	12	5	1	18
Other	4	6	10	2	22
Specialization	1	2	12	6	21
Major	0	6	1	0	7
Emphasis	1	2	4	1	8
Degree in Another Field (i.e. Long Term Care, Gerontological Nursing)	6	4	10	1	21
Total	48	187	151	22	408

Some problems appeared when the data on the requirements for the gerontology certificate and degree were analyzed. Respondents were asked to indicate the total hours of credit for the program, the number of required and elective gerontology hours of credit, the non-gerontology credit hours, and the credits required for gerontology field work. Table 10 shows the responses for both semester hours of credit and quarter hours. It will be noticed that the individual requirements do not add to the total requirements. This may have occurred because some requirements were included twice; for instance, field work credit may have been considered as part of the required gerontology courses and when listed separately, made the individual requirements appear to be greater than the whole. Additional analysis will be necessary to clarify this situation, but this preliminary report does provide for the first time insight into the mean requirements of gerontology credentials.

As will be noted in Table 10, the associate and bachelor's degree programs required a higher number of required and elective gerontology credits than did the master's degree program. Since the associate and bachelor's programs are typically larger than the master's degree, it is not surprising that the gerontology requirements should also be higher. However, the bachelor's level certificate did not include as many units of required and elective gerontology courses as did the associate level certificate, and the master's level certificate included substantially less gerontology course work that either of the other levels.

Field Experience. Both certificate and degree programs at all three levels required substantial amount of field work. The number of credit hours awarded for field work did not vary greatly by level or credential, but the required number

TABLE 10.
Gerontology Credentials: Mean Requirements

Associate Level	Required Gerontology Credits	Elective Gerontology Credits	Field Work Credits	Non-Gerontology Credits	Total Credit Required	
Certificate						
Semester	16.5	3.1	4.0	6.0	30.7	N = 13
Quarter	26.6	3.7	7.7	14.0	46.1	N = 7
Degree						
Semester	22.9	5.0	3.7	44.6	58.4	N = 10
Quarter	29.3	1.0	9.0	29.0	85.3	N = 3
Bachelor's Level						
Certificate						
Semester	15.3	5.4	4.0	12.9	26.6	N = 28
Quarter	17.3	5.4	7.4	1.5	26.8	N = 11
Degree						
Semester	30.3	9.1	6.4	53.1	72.9	N = 27
Quarter	24.5	15.0	6.0	64.0	50.7	N = 3
Master's Level						
Certificate						
Semester	13.9	5.6	5.5	52.7	23.9	N = 27
Quarter	13.8	7.3	6.2	39.0	29.5	N = 6
Degree						
Semester	21.1	5.8	6.6	17.9	38.1	N = 18
Quarter	12.0	12.0	4.0	21.0	45.0	N = 1

of clock hours to receive this credit did. At the associate level certificate programs required a mean of 189 hours while the degree programs required a mean of only 96. At the bachelor's level, certificate programs required a mean of 141 hours while the degree programs averaged 216. At the master's level, 152 hours were the mean requirement for the certificate while 343 was the mean for the degree. The high number of required clock hours for the master's degree was not surprising since the master's level is generally considered to have a professional orientation with skill training and experiential learning being a key part of the program.

As expected, students in the associate and bachelor's degree programs completed a much larger number of non-gerontology credit hours. The master's degree was virtually all gerontology courses, while the other two levels were not. Especially at the associate level, the number of non-gerontology credits included in the certificate was greater than expected. These related courses were apparently used to provide additional breadth to the program or to develop generic skills that can be of use to the graduates.

Regardless of the name or level of the credential, 84% were reported to have an occupational orientation, that is, they were offered as a means

of preparing the graduate for employment. The only credential to have a substantially lower level of occupational orientation (59%) was the minor, which was generally offered at the bachelor's level.

Conclusions. The growth of gerontology education has resulted in the creation of over 400 programs of instruction which culminate in the award of a gerontology credential. The certificate is the most common of these with the degree occurring second most frequently. A substantial number of students have graduated from many of these programs and are now available for employment in the field of aging.

The credentials are distributed across the four levels of higher education, although nearly half are at the bachelor's level. This was a surprise to the investigators because the master's level programs have been the most visible and thus appeared to be the most common. However, there are many more undergraduate institutions, and it is at this level that much of the program growth has occurred.

It was also surprising that the associate level certificate included as many credit hours of required and elective gerontology courses work as the bachelor's level certificate and substantially more than the master's level. This indicates that students completing an associate level certificate have had more gerontology course work than certificate graduates at the bachelor's or master's level and may find transfer to a gerontology program at a higher level a replication of the instruction they have already completed.

Future reports on this survey will present a more detailed picture of current requirements for gerontology credentials. The next step is to assess more closely the consistency of these credentials and to develop clear descriptions of the model programs as well as the range of variation for each credential at each level.

10. The Content of Gerontology Instruction

Two previous studies (Van Orman, 1984, and Peterson, 1984) examining curricula for undergraduate and masters programs in gerontology revealed a good deal of consistency in curricula for programs at both levels. However, there are no previous studies of the comparability of other gerontology credentials nor of the curriculum at the associate or doctoral levels.

One major question posed by this research was the extent to which the gerontology content taught in the variety of existing programs was consistent across academic levels. This would clarify the extent to which there exists a core of gerontology content which is offered in most gerontology instructional programs. Rather than deal with specific course titles which differ substantially from one campus to the next, it was decided to include in the questionnaire a list of content areas and to ask which were required in the instructional program. This list was taken from the study of the Foundations of Gerontological Education (Johnson, et al., 1980) and was then expanded to include other content areas listed in curriculum guides available to the authors. Each program was asked to respond to this list of content areas by indicating the number of credit hours required for each.

Content Comparability. There was no content area which was required of students in all of the programs and at all of the levels. Social Gerontology was the most frequently reported, being required by a total of 51% of the programs. Psychology of Aging (50%) was second with Biology of Aging (42%), and Sociology of Aging (41%) following (Table 11). These four were by far the most commonly offered and required courses and so appear to form a *core of gerontology content* which is widely accepted and taught.

Over 80% of the required courses were offered for three or four hours of credit. There was virtually no variation in the amount of credit provided for the various content areas at different levels. This suggests that in practically all programs, one course was required in each of the core content areas; this course provided three or four hours of credit, whatever was typical for most courses in the institution.

The extent to which various content areas were required did differ by level. In general, the core content areas were more likely to be required at the associate degree level than was the case at the bachelor's or master's level. For instance, the Social Gerontology content was required by 75% of the associate level programs while only 39% of the master's programs did. Fifty percent of the associate level programs required Biology of Aging while 49% of the bachelor's level programs did (Table 11).

There were, however, a few content areas which were more likely to be required at the master's level than at the other two. These included Research Methods, Statistics, and Public Policy. These are obvious choices for graduate programs rather than associate and bachelor's level.

When the content requirements for certificates and degrees in gerontology were examined at the three levels (associate, bachelors, masters), the four core courses were still the most commonly required. Programs which awarded the gerontology degree were more likely to require this content than were those that offered the certificate.

The mean of the percentage for the four core courses was higher for the programs offering the gerontology degree than for those awarding the certificate. For instance, at the associate level, the mean of the percentage for the gerontology degree was 71.3%, while the mean of the per-

centage for certificate programs was 62.5%, indicating that the degree programs were somewhat more likely to require content on Social Gerontology, Psychology of Aging, Biology/Physiology of Aging, and Sociology of Aging than were certificate programs.

Conclusion. It was surprising that the percent of programs which required the core gerontology courses was so low. Although 50% or 60% may not seem low, previous studies (Peterson, 1984; Van Orman, 1984) reported higher levels of content consistency. Those studies dealt with degree programs or AGHE members while the data reported in Table 11 are for all credentials and institutions. However, the consistency at the master's level is particularly low and surprising since this is the same sample that Peterson surveyed in 1984.

Social Gerontology courses were the most widely required. They typically include an overview of the biological, psychological, and social aspects of aging, and so are in some sense a duplication of the three other core courses. However, the percent of programs requiring psychology and sociology of aging was virtually the same whether or not social gerontology was required. Interestingly, when social gerontology was required, biology of aging was required in 54% of the programs; when social gerontology was not required, biology of aging was only required in 37% of the programs. Thus, whether Social Gerontology is used as an introductory overview or as the total attempt to cover this content is unclear from the present analysis.

There appears to be only modest differences between the gerontology degree and the certificate. Most of the programs offering these credentials require most of the core content although the requirements are lowest at the master's level. The differences between these

TABLE 11.
Content Required by Gerontology Instructional Programs.
(Percentage requiring course at given level.)

Course types	All Levels	Associate Level	Bachelor's Level	Master's Level
Introduction to Social Gerontology	51	75	68	39
Psychology of Aging	50	67	66	38
Biology/Physiology of Aging	42	57	50	36
Sociology of Aging	41	52	57	30
Death and Dying	26	43	41	17
Counseling Older People	24	38	22	29
Health and Diseases of Aging	24	35	23	24
Public Policy for Aged	23	22	21	36
Research Methods	26	5	19	55
Health Care and Services	21	32	21	24
Nutrition and Aging	22	41	28	13
Community Programs for the Aged	17	24	19	19
Administration of Programs	14	21	17	16
Mental Health and Illness	18	35	16	18
Statistics	18	0	16	26
Program Planning and Evaluation	12	14	15	15
Marital and Family Relations	15	13	25	12
Economics of Aging	10	5	10	13
	N = 370*	N = 63	N = 77	N = 156

* Other levels of instruction, e.g. Continuing Education, Doctorate, MD, and Post Doctorate, are included with Associate, Bachelor's and Master's.

two credentials is not currently clear and could benefit from study by AGHE's Standards Committee.

The data indicated that the core gerontology courses—Social Gerontology, Psychology of Aging, Biology of Aging, and Sociology of Aging—are being offered at all levels of instruction. This means that students moving from an associate level program to a bachelor's level, or from a bachelor's level to a master's level are likely to find that the content includes substantial repetition. Although the depth may be greater and the orientation somewhat different, it may not be perceived to be so, and the student may feel that the same content is being covered. A great deal of thought and attention will be needed in this area if program articulation and a ladder concept of curriculum is to be created in the near future.

Several content areas that would appear to be of great value to students learning about gerontology were not widely required. For instance, only 10% of the programs required a course in the Economics of Aging, 22% required Nutrition, and 23% required Public Policy and Aging. These relatively low percentages of requirement indicate that the study of gerontology is still focused on the disciplinary aspects rather than the professional and applied content. Although most respondents indicated that their purpose was to prepare students for employment in the field, required course content remains closely tied to the core disciplines with relatively little emphasis on skills, programs, and policies for the aged.

11. Gerontology Program Students and Alumni

Gerontology instructional programs tend to be fairly small, and this size was reflected in the limited number of students who received gerontology credentials. The mean number of certificate graduates from programs at all levels was 42, and the mean number of degree graduates was 30. Respondents were asked to indicate the number of students who had graduated in each of the past five years. The total number of graduates was 2,823 in 1981, and that number increased to 4,614 in 1985. These data show a consistent increase in the annual number of gerontology program graduates, but they also indicate that a relatively small number of graduates are being produced.

When the number of full and part-time students for the 1985-86 year is compared with the number of graduates, it is clear that approximately twice as many students were enrolled as have been graduating annually indicating a probable increase in the number of graduates in the future. This anticipated growth trend is also shown in the respondents' predictions of the number of full and part-time students who were anticipated to be enrolled during the 1987-88 year. The predictions were generally optimistic and indicated expected future enrollment at a somewhat higher level. Although not shown in the tables presented, the number of graduates, present students, and future students showed the same growth trend for each credential, e.g. concentrations, emphases, majors, minors, and specializations.

Because there were more gerontology certificate programs than degree programs, they have produced substantially more graduates (Table 12). However, the mean annual number of certificate graduates per program is also higher than the mean annual degree graduates per program.

For certificate programs, the master's level programs have produced the highest mean number of graduates in the past, but the gap seems to

be closing and estimates of future master's level certificate students are higher than either the bachelor's or associate level. For degree programs, bachelor's level programs have produced the highest mean number of graduates and were expected to do so in the future.

Conclusion. Respondents to the current survey indicated that the number of graduates of gerontology certificate and degree programs have increased annually over the past five years and are expected to continue to grow in the future. However, the total of 4,614 graduates at all levels and with all credentials for the year 1985 is not high when it is considered that approximately 1.8 million students complete college degrees each year. Even if all of these gerontology graduates sought employment in the field of aging, their numbers would be very modest.

The number of students increased from 1981 graduates to 1985 graduates to present students to future students for each level and each credential, except for the bachelor's level certificate. It is impressive that the respondents were so consistent in their reports of past and future growth of the number of students. It is a surprise, however, to find that the predicted number of bachelor's level certificate students is expected to substantially decline in the future. The data provide no explanation of this expected decline; apparently the respondents were not as optimistic regarding this level of credential as they were for the others.

TABLE 12.
Total Annual Gerontology Program
Graduates and Students.¹

Alumni	All Programs	Certificate	Gerontology Degree
1981	1,402	970	184
1982	1,639	1,087	226
1983	2,068	1,330	258
1984	2,327	1,490	269
1985	3,096	1,982	339
Current Students	9,897	5,613	1,498
Future Students	12,785	6,935	1,977

¹This table reports only students who received a gerontology credential, not the total number who graduated from a gerontology program.

12. Services and Resources Offered

In addition to regularly offering gerontology credit instruction, many of the campuses indicated that their faculty and staff were involved in other activities related to the field of gerontology. Questions were asked about three areas: curriculum and scheduling, additional services provided to students, and special services for older students.

Curriculum and Scheduling. The curricular and scheduling adaptations indicate the curricular emphasis and involved both credit and non-credit offerings. The number and percent of gerontology programs which reported offering the specific activities are listed below:

TABLE 13.
Curricular Adjustments Offered.

	Number	Percent
Offering summer courses for credit	273	60%
Offering evening courses for credit	311	68%
Offering workshops for credit	145	32%
Offering professional continuing education courses	211	46%
Offering credit courses away from campus	128	28%
Offering summer courses for non-credit	49	9%
Offering non-credit workshops	143	31%
Offering conferences	186	40%

Services to students. Many campuses were involved in the development of instructional and training materials which related to their gerontology education program. Campuses reported the following amount of involvement in five areas:

TABLE 14.
Instructional Materials Developed.

	Number	Percent
Development of Audio-visual materials	184	43%
Development of training materials	176	40%
Provision of technical assistance or training to community organizations	317	72%
Publications of materials	156	36%
Conduct of research	304	69%

Services to older people. Likewise, many campuses offered special considerations and services to older people in addition to their gerontology instruction. The number and percentage of campuses reporting these activities was as follows:

TABLE 15.
Services Offered to Older Learners.

	Number	Percent
Reduced tuition	222	56%
Offers Elderhostel	184	46%
Allows seniors to audit courses	249	62%
Offers courses especially designed for older people	88	22%
Offers counseling for older persons	139	35%
Offers other services to older persons	57	14%

13. Administration on Aging Support of Gerontology Training

Although it is clear that gerontology instruction in American institutions of higher education has grown rapidly over the past 20 years, it is unclear what part government training grants have played in this development. This funding is credited with both facilitating the establishment and growth of instructional programs and with destroying them, when the federal support terminates.

Several federal government agencies provide gerontology and geriatrics training grants to institutions of higher education, for instance, the National Institute of Mental Health, the National Institute on Aging, and the Health Resources and Services Administration, but the U.S. Administration on Aging (AoA) has the primary charge for developing manpower for the field of aging and has pursued that role for the past 20 years.

Most of the AoA training grants were awarded to individual institutions, although some consortia were successful in competing for funds. Institutions which have consistently received support over the 20 year period were reported to have a larger student body and to be more likely to offer graduate instruction. Craig (1981) concluded that the grants achieved a reasonably good geographic distribution, but planning grants to small schools and consortia awards have tended not to achieve lasting results. He suggested that continuing funding would be necessary in order to maintain programs at small institutions or to keep consortia viable.

Receipt of Training Grants. Of 2,220 responding campuses, only 160 (7%) had ever been primary grantees of AoA training grants, and 56 (3%) had been consortia members which had received AoA training support. As Craig (1981) had previously reported, campuses which of-

fered higher degrees were the most likely to have received these grants, although the percentage of doctoral offering campuses receiving AoA support only reached 28%. However, 52% (113) of the campuses which received an AoA grant and responded to this survey offered the Ph.D. as their highest degree while only 25% had the bachelor's or associate degree as the highest credential. This does not mean that the gerontology instruction was offered at the doctoral level, but only that Ph.D. instruction was available on the campus.

This study also confirmed Craig's conclusion that AoA has supported larger campuses. Only 51 (24%) of the AoA training grants went to small campuses while 107 (50%) went to larger campuses. Overall, more than one-half of all AoA training grants went to campuses with more than 10,000 students, although these campuses comprise less than 14% of the total institutions of higher education.

Current Gerontology Instruction. Of the 2,220 responding campuses, 1,154 (52%) regularly offered at least one credit course in gerontology or geriatrics. Ninety percent of the campuses which had ever received AoA training support reported currently offering gerontology instruction, while only 48% of those that had not received AoA grants reported offering gerontology credit courses.

AoA support can also be examined for correlations with instructional programs, those which offer four or more credit courses in gerontology. Training grant support has gone primarily to gerontology instructional programs at the baccalaureate (108) and master's degree (137) level. A very small number of the funded programs were at the associate degree (9) or Ph.D. level (39).

However, when a comparison between those gerontology instructional programs that have received AoA training support and those that have not were examined, a much higher number of non-funded programs were at the bachelor's (168) and associate (56) levels suggesting that AoA funds have supported nearly half of the master's level programs but less than 15% of the associate programs.

Program Funding. One concern in the past has been that instructional programs receiving federal grants would not be successful in acquiring financial support from their own institution. This did not seem to be the case with 626 (87%) of the 719 programs that responded to questions about their budget. Programs which had received AoA training support and still offered gerontology instruction reported that 70% of their current budget came from institutional sources and 16% from the federal government. Those programs that had never received an AoA training grant reported receiving 81% of their budgets from institutional sources and four percent from federal sources. For the entire population of gerontology instructional programs, federal support amounted to a mean of only 10% of the total budget while institutional support comprised 76%.

In comparison with Bolton et al.'s 1978 report that 34% of gerontology programs' budgets came from federal sources, a significant decline in reliance on grants has occurred, and institutional replacement funds have been acquired in most cases. It seems clear that through the years AoA provided seed money for the initiation of programs; when this federal support was terminated, the programs were able to secure institutional funding to maintain themselves. Therefore, although federal funding has been drastically

reduced in the past few years, the programs have become institutionalized.

Timing of Grants. AoA training support appears to have had its greatest impact in the years before 1981. Forty-three percent of the programs begun before 1971 received training grants from AoA while only 9% of those established since 1981 have (Table 16). This suggests that AoA's role was most important in the early years of program development. While some programs did not need federal support, many did, and used the training grants to build a financial base that has increased whether or not AoA training funds were continued.

Program Structure. When campuses which offered at least four gerontology credit courses were asked whether or not they had a separately designated gerontology or geriatrics program of instruction, 362 did. Of campuses which had received AoA support, 61% had created such a program while 50% of campuses not receiving AoA support had done so. This indicates that AoA funding has resulted in the creation of a separate program of instruction in nearly two-thirds of the cases, but that this has occurred without AoA funding in nearly as many situations.

Programs which had received support from AoA were more likely to be named Programs (37%) or Centers (34%). The non-funded programs were most likely to be called Programs (58%) indicating a somewhat lower level of organizational structure than is reflected in the title of Center.

Graduates. Organized programs of instruction which had received AoA grants reported having had a larger number of gerontology graduates than have those which have not had such grants. For instance, approximately 29% of programs that have received AoA support had graduated more than 50 persons while only 18% of non-grant campuses have achieved that number of

graduates. However, approximately the same number of grant receiving and non-grant campuses have had over 150 graduates.

Since AoA has had a consistent concern for the occupational relevance of gerontology instruction, it is not surprising that 68% of the campuses which have received AoA support describe their curricula as occupationally oriented while 22% describe theirs as emphasizing general or scientific understanding of aging, and 5% describe theirs as having both emphases. However, it is surprising that 70% of the campuses which have not received AoA training grant support report an occupational emphasis with only 16% having a general or scientific outcome. This suggests that faculty curriculum planners on all campuses are aware of the importance of jobs to students and see gerontology instruction as preparation for employment. Receipt of AoA training grants has not been the primary reason for this orientation.

Conclusions. Training grants from the Administration on Aging have been very visible for the past 20 years and have been eagerly sought by faculty of many gerontology instructional programs. These potential grants have doubtless been the impetus for the planning of some gerontology instruction, and many programs were initiated with this federal funding. The priorities and length of the funding have received some criticism over the years, but 90% of the campuses that have ever received AoA training support continue to offer at least one gerontology course, and nearly 75% offer a program of gerontology instruction long after the federal funding has terminated. The existence of many Institutes and Centers is evidence to the orientation which AoA has taken and the success of these programs in gaining a higher level of organizational structure within the institutional environment.

The existence of gerontology courses or programs is not the only outcome of AoA training grant support. Many grants included faculty

training, curricular development, and continuing education. These undoubtedly upgraded the quality of instruction, aided other campuses in course development, and oriented current practitioners to this developing field. No specific data are available on the impact in these areas, but they should not be overlooked when considering the total effect of the training grants.

However, the data from this survey suggest that AoA training grants have not been the primary force in developing gerontology instruction. Most campuses which currently offer a program of gerontology instruction have never received any such support, and those that have seem only modestly larger or more stable than non-grant recipients. This has probably occurred because of the growing awareness of the demographic imperative, increasing faculty and student interest in the area, a rapid growth in

TABLE 16.
Receipt of Administration on Aging
Training Grants by Year First
Offered Gerontology Instruction.

Year of First Course	Received AoA Grants		Total
	Received	Not Received	
Before 1971	43 41.3%	61 58.7%	104 100%
1971 to 1975	48 19.9%	193 80.1%	241 100%
1976 to 1980	65 15.8%	346 84.2%	411 100%
1981 to 1985	20 8.5%	216 91.5%	236 100%
To begin	0 0.0%	22 100%	22 100%
Total	176 100%	838 100%	1014 100%

gerontological literature, and increased support by foundations and other government agencies.

Most campuses have very limited federal funding for gerontology training, and few rely primarily on training grants to support the basic program. This is a substantial change from 1976 and reflects the commitment which individual campuses have made to gerontology instruction. It also means that AoA has been much more successful than previously reported in providing time-limited funding which is subsequently replaced with institutional dollars. The transition has been successfully completed in most cases and it reflects well upon both the federal agency and the institutions which now support their own gerontology instructional programs.

AoA funds were undoubtedly most important during the early periods of program development, especially before 1980. There was less institutional interest in gerontology at that time because job lines were not clear and faculty expertise was frequently lacking. A higher percentage of programs received support then, but the majority of programs were still begun without AoA aid.

AoA funds are no longer sufficiently large to direct the whole gerontology instructional enterprise. Too many programs are underway in too many diverse areas for any one funding source to be a dominant influence. Rather, it seems appropriate that more precise targeting now take place, targeting that will encourage development of specific instructional areas. Since 1983, AoA has done this, but the targets have changed annually, and a long-range plan has yet to become clear. Some possible targets seem evident from the data of this study.

First, community colleges have developed gerontology instruction at a rate significantly slower than that of baccalaureate and master's degree institutions. Only 5% of the responding community colleges currently offer at least four gerontology courses as compared to 8% of four-year institutions, 22% of master's granting campuses, and 45% of doctoral-granting institutions. Since the majority of the positions to serve older people in the future will be at the paraprofessional level, expansion of community college instruction in gerontology should be a major priority.

Second, greater targeting needs to be done in terms of bachelor's and master's level program support. There remain geographic areas and professional fields that are under-represented in gerontology instruction. However, comprehensive data that would inform such policy decisions are scarce and are only occasionally used to target areas where instruction would be particularly important. More data are needed and their use is extremely important in future funding decisions.

Third, the greatest long term value results from the continuation of gerontology instruction after the completion of federal funding. In order to enhance the likelihood of this occurring, individual grantees should be aided to build on the internal support system and to assure that campus administration is supportive of the programs that are initiated with federal dollars. By providing some technical assistance and encouragement, the long-term viability of programs could be enhanced and their integration within the campus environment insured.

14. Typical Program

In order to provide some additional insight into the typical gerontology instructional program in American institutions of higher education, this section will use the mean response to many of the study questions to provide a generalized description of "a typical program." This composite does not represent any particular program, nor should it be assumed to be the most common description of the programs received. Rather, when the mean response to a number of questions are combined, the following picture of a gerontology instructional program results.

The typical gerontology program is located on the campus of a public institution with a total student body of between 10,000 and 20,000. The campus offers undergraduate and graduate instruction, at least at the master's degree level and frequently including some doctoral programs.

The gerontology organizational unit is called a

Gerontology Program; it came into existence in 1980 and has never received any AoA training grant support. It is headed by an administrator with the title of Director who reports to a Dean. The Program has separate organizational status, i.e. it is not located within a department but is free standing. The Program has a very limited budget, totaling only a little over \$10,000 annually. At least three quarters of this comes from institutional resources, but small amounts are received from grants, gifts, and other sources. The funds are used to cover support staff and to occasionally to pay faculty for teaching courses.

The Program offers credit courses which lead to the award of a Certificate in Aging at the bachelor's and graduate levels. The Certificate requires 28 credit hours to complete. Twelve of these are required gerontology courses, 6 are gerontology electives, 4 are field work, and 6 are non-gerontology courses. Required courses include Introduction to Social Gerontology, Psy-

chology of Aging, Sociology of Aging, and Biology of Aging. Research methods is required at the graduate level.

It involves eleven faculty members counting both full-and part-time instructors. The typical faculty member is 40 years of age, holds the Ph.D., is earning between \$30,000 and \$35,000 annually, and has been involved in college teaching for 13 years. Although this faculty member has had no formal preparation in gerontology, he has published 10 articles in the area. Each year he teaches one or two gerontology courses and three courses in some other area.

A total of 390 students have ever enrolled in a gerontology credit course and 240 have completed a non-credit workshop. There are currently 26 students enrolled in the Certificate Program, with 7 having graduated in 1985. The number of graduates has increased by one annually, and this growth trend is expected to continue in the future.

15. Conclusions and Recommendations

Teaching about the processes and problems of aging, referred to in this report as gerontology instruction, has become very widespread within American institutions of higher education. Approximately 1325 campuses (44% of the total in this nation) offer this instruction on a regular basis, and the number of campuses involved continues to grow.

However, there have been few major surveys of gerontology instruction which provide comprehensive descriptions of this growth. This study is a major step toward the provision of this information. On the one hand, the data confirm some developments that were already generally recognized, but for which there was little empirical evidence. For instance, the number of colleges and universities offering gerontology instruction had grown, but the extent of that growth was not known.

On the other hand, some of the data conflicts with previous knowledge and suggests caution in making assumptions about the field and current trends. For instance, it was surprising, at least to the authors, that there was not greater agreement on the gerontology courses that were required. No course was required by as much as 60% of the programs, suggesting that a good deal of variability still exists in gerontology curricula.

Perhaps more important than either the confirmation or rejection of current knowledge is the added insight that comes from a study of this sort. The most obvious conclusion is that the situation is much more complex than had previously been reported. As an example that has been discussed throughout the report, the data clearly show that campuses offering the associate or bachelor's as their highest degree are much less likely than campuses offering graduate instruction to include gerontology course

work. However, since the vast majority of campuses offer only undergraduate course work, much of the gerontology instruction is being conducted on these campuses. They are both under-represented and offer the majority of the instruction.

That type of insight into the complexity of the situation suggests the value of data collection and analysis, that we tend to simplify in order to understand and communicate, but in doing so, we obscure some of the richness and variability that exists. The literature of gerontology instruction is fairly large, but little of it is based on primary data and what is, has been limited to small, local samples rather than a comprehensive approach.

Probably one reason for this has been the reluctance of federal agencies to fund this kind of research. There are so many other pressing priorities that the collection of information on gerontology instruction and manpower development has been a neglected area. This is disappointing because such rapid development needs to be accurately reported and norms need to be promulgated for the new and growing programs of instruction.

Much information and insight remains to be generated on gerontology instruction as well as in the associated areas of manpower supply and demand, employment experience, and faculty development. Research in these areas is currently being undertaken or has been proposed by institutions of higher education in conjunction with AGHE.

It is recommended that a coordinated, phased research plan be implemented to systematically collect data on (1) changes in gerontology instruction, (2) employment experiences of graduates of gerontology instructional programs, (3) assessment of the level of knowledge and skill of

current practitioners in the field of aging, (4) future supply and demand for personnel in the field of aging, and (5) trends in faculty development and involvement in gerontology instruction.

It is suggested that the approach to be used should deal primarily with professional fields rather than with such alternatives as agencies which employ aging personnel or the percentage of time that the practitioner works with older people. Since AGHE's primary interest is in instruction, it is appropriate to concentrate on professions since entry is usually preceded by an educational program of significant length.

The professions to be examined will be ones that require pre-service education and that restrict entry by licensure, certification, or organizational membership. This will mean that health-related professions are emphasized, but the studies will not be limited to the health professions. The boundaries of many occupational roles in the field of aging are so open that it is impossible to gain a reasonable grasp of the situation, e.g. an operational definition for a case manager is currently open to much debate. However, the more established professions have clearer boundaries making it easier to identify persons who are working in the field. Thus, AGHE proposes to begin by focusing on those occupational roles which are the most clearly defined in current practice or are rapidly emerging.

To successfully carry out this future research, it will be necessary to gain the cooperation of the research staffs of national professional organizations and federal agencies. AGHE has already established formal liaison with several national organizations and has recommended a consortium arrangement with several federal government agencies.

Recommendations. It is suggested that the following steps be undertaken as a means of gaining greater insight into trends in gerontology instruction and the personnel situation of professionals working with older people:

(1) Surveys of the extent and comparability of gerontology instruction need to be updated regularly in order to understand current and future trends. Data from Bolton et al.'s 1978 study provided baseline data which was referred to in this study, but regular future studies will be needed also. It is recommended that a comprehensive survey of gerontology instruction be undertaken every five years in order to determine trends and to assess the extent of curriculum and organizational consistency. This regular data collection would update the newly established data base, expand information about various aspects of the curriculum, and provide case histories of program development on various campuses.

(2) It is also important to know more about the employment experience of those persons who

complete gerontology instructional programs. A preliminary study by Peterson (1984) and a current study by Connelly at the University of Utah will provide baseline data, but as the field develops it will be necessary to have increasingly specific data on personnel from different professions, at different levels, and in different geographic areas.

(3) Data on the quality of preparation of gerontological professionals will be needed. Good understanding of the academic and practice background of current practitioners in the field of aging will be needed in order to assess their quality and to determine whether the current cohort of service providers is sufficiently trained or if continuing education is needed to reach an appropriate level of understanding of gerontology knowledge and skills.

(4) It will become increasingly important to understand the supply and demand situation of aging professionals in many occupational fields. Aging specialists in various professions may be experiencing a much different pattern of em-

ployment experience, and future projections of the supply of professionals and the demand for their services will be crucial to recommendations for the expansion or contraction of instructional programs in the various areas of aging.

(5) Much more needs to be known about the faculty who are involved in gerontology instruction. The preliminary data reported in this study indicate that less than half have any formal preparation in gerontology. Much more will need to be done in faculty development and some means of monitoring the quality of our faculty will be necessary if we are to achieve the status and respect that the field needs and deserves.

This plan is sufficiently ambitious so that it will need to be undertaken in stages. However, by a consistent attempt to collect and integrate data on these five areas, it will be possible, over time, to gain much more insight into the current state of the field and to develop reasonable plans for its orderly development in the future.

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